REMARKS

This Amendment is filed in response to the Office Action mailed June 27, 2007. All objections and rejections are respectfully traversed.

Claims 1-16, and 39-51 are in the case.

Claims 45-51 were added to better claim the invention.

Claims 1, 2, 6, 7, 8, 9, 16, 39, 40, and 41 were amended to better claim the invention.

No Claims were cancelled.

Request for Interview

The Applicant respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant may be reached at 617-951-3028.

At Paragraphs 3-7 of the Office Action, claims 1-16, 39, and 40 were rejected under 35 U.S.C. 112, second paragraph. Amendment of the claims is believed to satisfy this rejection.

At Paragraphs 8-27 of the Office Action Claims 1-16, and 39-41 were rejected

under 35 U.S.C. 102(e) as being anticipated by Corbett, et al. U. S. Patent No. 6,993,701

(hereinafter Corbett).

Applicant's claimed invention, as set forth in representative claim 1, comprises in part:

1. In a file server having a storage operating system, a method for managing storage of data in a plurality of storage devices, each storage device having a plurality of blocks for storing data, comprising:

   generating block layout information in a file system layer of the storage operating system by determining which blocks within the plurality of blocks are allocated for storing data and which are unallocated;

   transferring the block layout information from the file system layer to a RAID layer of the storage operating system; and

   responsive to the block layout information, the RAID layer controlling the execution of I/O operations by identifying blocks within the plurality of blocks for use by the I/O operations so as to substantially maximize chain lengths of reads for calculation of parity;

   selecting a method for parity calculation which requires the fewest number of read operations to compute parity for the I/O operations, and

   responsive to the block layout information and the parity calculation method selected, identifying the blocks within the plurality of blocks for use by the I/O operations.

   Corbett discloses a "row-diagonal" parity technique. The technique reduces

overhead of computing diagonal parity, where the diagonal parity spans all data disks and

row parity disks of a storage array.

Applicant respectfully urges that Corbett is silent concerning Applicant's clamed novel

responsive to the block layout information, the RAID layer controlling the execution of I/O operations by identifying blocks within the plurality of blocks for use by the I/O operations so as to substantially maximize chain lengths of reads for calculation of parity;

selecting a method for parity calculation which requires the fewest number of read operations to compute parity for the I/O operations, and

responsive to the block layout information and the parity calculation method selected, identifying the blocks within the plurality of blocks for use by the I/O operations.

That is, Corbett has no disclosure of Applicant's claimed *selecting a method for parity calculation which requires the fewest number of read operations to compute the parity calculation for the I/O operations*.

Applicant respectfully urges that the absence in Corbett of any disclosure of Applicant's claimed novel *selecting a method for parity calculation which requires the fewest number of read operations to compute the parity calculation for the I/O operations* renders Corbett legally incapable of anticipating Applicant's claimed invention under 35 U.S.C. 102.

NEW CLAIMS

Applicant's claimed invention, as set forth in representative new claim 45 states:

45. A method for managing storage of data by a server, comprising:

receiving a request to write data to a plurality of storage devices;

generating block layout information to determine which blocks within a plurality of blocks located in the plurality of storage devices are allocated for storing data and which are unallocated;

identifying blocks within the plurality of blocks for use by a set of I/O operations to store the data;

determining the number of read operations needed to compute parity for the data by computing parity using a subtraction method of computing parity;

determining the number of read operations needed to compute parity for the data by computing parity using a recalculation method of computing parity;

choosing either the subtraction method of computing parity or the recalculation method of computing parity by determining which of these two methods requires the fewer number of read operations, and choosing the method requiring the fewer number of read operations; and

writing the data to identified blocks, and computing parity for the data using the chosen method of computing parity.

Applicant respectfully urges that Corbett has no disclosure of Applicant's claimed

novel

determining the number of read operations needed to compute parity for the

data by computing parity using a subtraction method of computing parity;

determining the number of read operations needed to compute parity for the

data by computing parity using a recalculation method of computing parity;

choosing either the subtraction method of computing parity or the recalculation method of computing parity by determining which of these two methods requires the fewer number of read operations, and choosing the method requiring the fewer number of read operations.

Applicant particularly urges that Corbett has no disclosure of Applicant's claimed *choosing either the subtraction method of computing parity or the recalculation method of computing parity by determining which of these two methods requires the fewer number of read operations.*

That is, Corbett has no disclosure of Applicant's claimed *by determining which of these two methods requires the fewer number of read operations.*

All independent claims are believed to be in condition for allowance.

All dependent claims are dependent from independent claims which are believed to be in condition for allowance. Accordingly, all dependent claims are believed to be in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

_____/A. Sidney Johnston/_____
A. Sidney Johnston
Reg. No. 29,548
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500